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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,374	07/14/2004	Dolf Henricus Jozef Van Casteren	NL020022	2783

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EXAMINER

HO, BINH VAN

ART UNIT PAPER NUMBER

2163

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/501,374

Applicant(s)

VAN CASTEREN, DOLF
HENRICUS JOZEF

Examiner

Binh V. Ho

Art Unit

2163

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10 and 12-18 is/are rejected.
- 7) ☒ Claim(s) 9 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This is a response to amendment filed 01/10/2007.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,2-5,7-8,13-15 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Blom (US 5,235,255).

(Claims 1,15)

Blom discloses in figures 1-2, a device for operating a high-pressure discharge lamp. said device comprising a switched-mode power supply circuit for supplying power to the high-pressure discharge lamp from a supply voltage, the power supply circuit including at least one power switching element, control means for controlling the switched-on and switched-off states of said power switching element for controlling the power or current supplied to the high pressure discharge lamp; wherein the control means are adapted to control the power consumed by the lamp during its steady phase or the current consumed by the lamp during its run-up phase by controlling the on-time (Ton) of the switched-on state of the at least one power switching element (Abstract, col. 5, lines 13 +, lines 40 +).

(Claims 2, 16)

Blom discloses in figure 2, wherein the value of the on-time (T_{on}) of the at least one power switching element is a preset value, the preset value depending on the specifications of the type of discharge lamp used (col. 4, lines 3 +).

(Claims 3, 17)

Blom discloses in figures 1-2, wherein the on-time (T_{on}) of the at least one power switching element for a specific discharge lamp type is substantially constant (Abstract).

(Claims 4-5, 18)

Blom discloses in figures 1-2, comprising input current determining means for determining the input current of the power supply, the input current determining means providing a signal representative of the determined input current; a feedback means through which said signal is fed back to the control means, wherein the control means are adapted to control the on-time (T_{on}) of the at least one switching element as a function of said feedback signal (Abstract).

(Claims 7-8)

Blom discloses in figure 1, wherein the control means comprise a feedback controller (V, IV) for controlling the control means.

(Claim 13)

Blom discloses in figure 1, wherein the switched-mode power supply (col. 1, lines 6 +) comprises a half-bridge (A) or full-bridge (A) commutating forward topology .

(Claim 14)

Blom discloses in figure 1, wherein the switched-mode power supply comprises a down-converter (II).

4. Claims 1,2-5,7-8,13-15 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Fellows (5,187,414).

(Claims 1,15)

Fellows discloses in figures 1, 4-6, a device for operating a high-pressure discharge lamp. said device comprising a switched-mode power supply circuit (24 and 28) for supplying power to the high-pressure discharge lamp from a supply voltage, the power supply circuit including at least one power switching element (111, 112, 134), control means for controlling the switched-on and switched-off states of said power switching element for controlling the power or current supplied to the high pressure discharge lamp; wherein the control means are adapted to control the power consumed by the lamp during its steady phase or the current consumed by the lamp during its run-up phase by controlling the on-time (Ton) of the switched-on state of the at least one power switching element (col. 2, 39-56; col. 5, lines 9-29; col. 8, lines 5-32 and 57 +; col. 6, lines 40-58; col. 10, lines 54-64).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having

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ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fellows in view of Lev (US 6,963,178).

(Claims 6)

Fellows discloses substantially all of the elements, except the dim level means providing a signal representative of the dim level of the lamp. Lev teaches control is desired, for example, in controlling the dimming. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use power controllers are well known and normally employ analog techniques.

(Claim 10)

Lev discloses wherein the switching frequency of the switched-mode power supply is at least 100 kHz (col. 18, Frequency range 95-105Khz).

(Claim 12)

Lev discloses in figures 2-3,6,9-11,14, wherein use is made of a half or full-bridge power supply and a filter circuit comprising a series inductor (41) and at least one filter capacitor (42) parallel to the lamp.

Response To The Arguments

6. Applicant's arguments filled on 06/05/2006 have been fully considered. Applicant made the following arguments:

Accordingly, Applicant submits that "1. abstract of the Blom patent discloses only constant power during normal operation ("A circuit arrangement for operating a

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discharge lamp with a substantially constant power"). Where is there any disclosure of controlling current during startup?"

The Examiner respectfully disagrees with the Applicant's argument above, since the formula $P = I * V$, if P is constant power therefore, I and V must be constant. In claim 1, Applicant has 2 conditions:

1. the power consumed by the lamp during its steady phase
2. or the current consumed by the lamp during its run-up phase by controlling the on-time (T_{on}) of the switched-on state of the at least one power switching element

Accordingly, Applicant submits that "2. §2131 loudly proclaims in boldface, uppercase letters "TO ANTICIPATE A CLAIM, THE REFERENCE MUST TEACH EVERY ELEMENT OF THE CLAIM." It is respectfully submitted that the Examiner is not following this directive. In response, the Examiner alleges that the features relied on by applicant are not recited in the rejected claims.

Controlling current during startup is recited in claim 1 ("wherein the control means are adapted to control the ... current consumed by the lamp during its run-up phase"). This feature is not disclosed or suggested by the Blom patent. Therefore, there is no anticipation.

Claim 15 clearly recites controlling "the lamp power during the steady state of the lamp by fixing the on-time (T_{on}) of the at least one power switching element." There is nothing connected to the bases of the transistors in commutator circuit III in the Blom patent. How can the patent disclose any control, let alone constant on-time? Clearly,

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every element of claim 15 is not disclosed in the Blom patent. Therefore, there is no anticipation."

The Examiner respectfully disagrees with the Applicant's argument above, in Abstract, the circuit operates a discharge lamp with a substantially constant power PL by means of a switch mode power supply with a variable input current Ia and provided with a periodically switching FET for controlling the variable input current by means of a drive signal, which **MAY** interpret "the lamp power during the steady state of the lamp (during the period when the lamp receives constant power) by fixing (which means adjusting, correcting) the on-time of the at least one power switching element (periodically switching FET would inherently include on-time period since "switching" will perform on and off. Periodically switching would inherently render adjusted on and off periods in order to provide period from on to off), **IF** the FET is equivalent to the power switch as claimed. All transistors inherently have control input their bases. Otherwise, what are their uses by merely connecting their emitters and collectors?.

Accordingly, Applicant submits that "3. It is not proper to use claims (column 5 of the Blom patent) for rejecting claims; In re Benno, 226 USPQ 683 (Fed. Cir. 1985). The Examiner responds by saying "In re Benno is a [sic] case law, not statue [sic], therefore the outcome of the case does not need to be practiced in all the other applications that are submitted with the United States Patent Office." It is respectfully submitted that the comment, if true, nullifies the entire judicial system of the United States. The United States is a "common law" country, which means that decisions by courts are applicable to other situations. It is strongly suggested that the Examiner consult with his supervisor

or the Solicitor's Office if he thinks the USPTO is not subject to the decisions of the Federal Circuit. The Federal Circuit seems to think that it is. So does Congress, which gave the Federal Circuit appellate jurisdiction. In case the Examiner was not taught such in the training for new hires, there is a hierarchy of authority: 1. Constitution of the United States, 2. Federal Statutes, 3. Federal Circuit (interpreter of the statutes), 4. Rules of Practice, and 5. MPEP. Decisions by the Federal Circuit are very much controlling. The Examiner further alleges "claims are part of Biota invention." Biota did not invent claims. He invented an electronic ballast. Claims are the legal definition of the invention but they are not the invention. "The scope of a patent's claims determines what infringes the patent; it is no measure of what it discloses." The Federal Circuit has held that an applicant's claims must be rejected on the basis of disclosures in the prior art and the Examiner is bound by that decision."

The Examiner respectfully disagrees with the Applicant's argument above, since According to the MPEP, "*A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984) . See MPEP 2141.02.*"

Accordingly, Applicant submits that "In support of the rejection the Examiner refers to column 2, lines 39-56, reproduced in part below.

"a fluorescent lamp load is coupled to the output of a variable frequency DC-AC converter or inverter. A half-bridge circuit is used in an illustrated embodiment and it is supplied with a variable frequency gating signal which is controllable in response to lamp current to obtain a substantially constant lamp current" [emphasis added].

The ballast operates at constant current. The claimed ballast operates at constant

power. There is no anticipation.

The Examiner refers to column 5, lines 9-29. The referenced portion of the Fellows et al. patent does not disclose constant current during startup. On the contrary, it is disclosed that "Safeties are automatically effected in response to excessive lamp voltage or currents" How can there be constant current if "excessive or insufficient currents" can occur? Constant current circuits are current limiting. There cannot be excess current. It is respectfully submitted that the Examiner's interpretation of the Fellows et al. patent is contrary to the disclosure. There is no disclosure of constant current during startup.

The Examiner refers to column 6, lines 40-58. The disclosure concerns the fact that the AC/DC converter and the DC/AC converter are synchronized, preferably operating at the same frequency. The relevance of the disclosure is not apparent. The Examiner refers to column 8, lines 5-32 and 57+. These disclosures relate to voltage. The relevance of the disclosures is not apparent.

The Examiner refers to column 10, lines 54-64. A portion of the disclosure reads as follows.

"After ignition, ... [o]peration is then continued ... to maintain the lamp current at a substantially constant average value.

Normal operation at constant current is not being claimed. There is no anticipation.

There is no disclosure in the Fellows et al. patent of a fixed on-time of at least one power switching element during steady state operation. For the reasons discussed above, the cited portions of the Fellows et al. patent are irrelevant. In FIG. 8 of the

Fellows et al. patent, the inputs to flip-flop 196 are derived from voltage comparators 197 and 202. There is no circuitry for making on-time constant. There is no anticipation."

The Examiner respectfully disagrees with the Applicant's argument above, since merely state that "excessive lamp currents" is an occasional situation when lamp obtain abnormal current (e.g. excessive) for safety reason. If the current is not constant, the illumination would be sometimes dimmer, sometimes brighter, which is contrary to purpose of the Blom invention of operating a **constant** power to the lamp. Since $P=IV$. Current and Voltage have to be constant in order to provide constant power. Otherwise, how come the power be constant while the current is not constant?

"a fixed on-time" (not in claim) and "fixing the on-time" (in claim 15) have different meanings. Fixed on-time does not necessarily mean "making on-time constant. Fixing could mean adjusting. Why must adjusting the on-time render a constant on-time?

Allowable Subject Matter

7. Claims 9,11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

The cited art of record fails to teach the on-time (T_{on}) is iteratively adapted with a iteration frequency lower than the switching frequency of the switched-mode power supply and the iteration frequency is 100 Hz or less, preferably about 10 Hz or less.

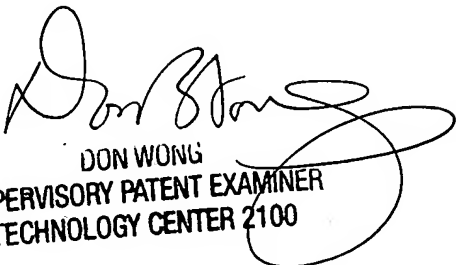
Inquiry

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh V. Ho whose telephone number is 571 272 8583. The examiner can normally be reached on M-F from 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K. Wong can be reached on 571 272 1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Binh V Ho
Examiner
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